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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: GERALD P. McCANN et al.

) Group Art Unit: 3744

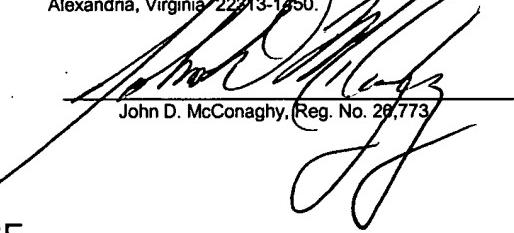
Serial No. 10/735,006

) Examiner: Ali, Mohammad M.

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) I hereby certify that this correspondence (along with any referred to as being attached or enclosed) is being deposited this day, August 23, 2004, with the United States Postal Service as first class mail in an envelope addressed to Commissioner for Patents and Trademarks, P.O. Box 1450, Alexandria, Virginia 22313-1450.

For: DRINK DISPENSING SYSTEM


John D. McConaghay, Reg. No. 28,773

RESPONSE

Hon. Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Sir:

Applicants here respond to the Official Action mailed May 21, 2004 in the above-captioned application.

The drawings were objected to under 37 CFR 1.83(a). This objection was based on claim 8 of the application which calls for the carbonator to be in the carbonated water circulation circuit between the circulation pump and the heat transfer coils. Reference is made to Figure 7 where the carbonator 130 is located in the circulation circuit between the circulation pump 110 and the heat transfer coils 108. Thus, the recitations of claim 8 are found in Figure 7. Reconsideration of the objection is requested.

All rejections in the aforementioned Official Action on prior art were based on 35 U.S.C. 103(a). The following rejections were made:

Claims 1, 3-5, 9	Bilskie et al. (6,021,922) V. Riley et al. (5,996,842)
Claim 2	Bilskie et al., V. Riley et al., V. Flessler et al. (4,333,587)
Claims 6-8, 10	Bilskie et al., V. Riley et al., V. Booth (3,731,845)
Claims 11, 12	Bilskie et al., V. Riley et al., V. Hessell (4,979,647)

Before turning to the claims, it is believed that a short discussion of the nature and purpose of the present invention is in order. The systems claims include a circulation circuit, a bar gun, a circulation pump capable of inducing circulation in the circuit and an ice storage bin having heat transfer coils therein and in the carbonated water circulation circuit. The market that this system so constituted particularly applies to is for bars. The bar environment is typically quite demanding. There is frequently little space, a lack of room for a refrigeration unit and an inability to accommodate the heat of such refrigeration units. Further, bars over the period of a few hours can experience demands from the "casual drink" level to a volume taxing the capability of a small refrigeration unit.

The claimed system has the capability of being both compact and simple. Further, the system is able to reliably provide drinks at an ideal temperature, even "the casual drink". The present system does not require a refrigeration system with all attendant difficulties. The system provides substantial capacity through induced circulation with the inclusion of heat transfer coils in an ice storage bin. The induced circulation provides the capability for a cold drink throughout the range from a casual drink to high volume. Further, the drink is of even greater quality because of the

temperature limiting capability of the ice storage bin which can safely approach the freezing temperature of the carbonated water. Induced circulation and the heat transfer coils in the ice storage bin insure the low temperature and the capacity to maintain that temperature.

The method presented in the claims is specifically directed to circulation through coils in an ice plate to achieve a temperature of 33° F or below in the carbonated water. The temperature of 33° F or below can be periodically achieved in a conventional ice plate system without circulation. However, achieving this result without the step of circulating requires a minimum residence time for the carbonated water in the ice plate and sufficient flow through the valve to have the chilled carbonated water dispensed. The step of circulation has the capability for creating a uniform supply of carbonated water at or below the target temperature and presented sufficiently near the dispensing valve so as not to be effected by ambient heat.

Turning to the issue of obviousness, MPEP § 2142 states in part:

ESTABLISHING A *PRIMA FACIE* CASE OF OBVIOUSNESS

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). See MPEP § 2143 § 2143.03 for decisions pertinent to each of these criteria.

The third requirement, a teaching or suggestion of all of the claim limitations, has not been met by the applied references.

All of the system claims 1 through 10 of the present application recite or depend from claims which recite in combination a "circulation circuit", a "bar gun", a "circulation pump" and an "ice storage bin including heat transfer coils". Additionally, the circulation pump is said to be "capable of inducing circulation". These elements provide the ability to achieve the nature and purpose of the system of the present application.

Bilskie et al. does not include a "circulation circuit" and has no pump capable of "inducing circulation". These statements are unequivocal as they apply to the carbonated water, the syrup and the plain water. Carbonated water in Bilskie et al. is generated in the carbonator 16 and is shown to progress through the tube 82 through the cold plate 48 and on to the valve 18. Syrup, provided in container 44, flows through the tube 46 into the cold plate 48 and then to the valve 18. Plain water held in tank 56 flows through lines 60 and 74 to also reach the cold plate 48 and then to the valve 18. No lines progress from the cold plate 48 back around for continued circulation. The pump 119 in Bilskie et al. simply pressurizes water to be used on demand by the carbonator 16.

The system claims of the present application recite a "circulation circuit". Further, the "circulation pump" is said to induce "circulation in the carbonated water circulation circuit". From the specification, it is clear that the disclosed circuit and the disclosed circulation contemplates a loop. Reference may be made to the Figures as well as the specification. Further, a common definition of the term "circulation" found in the undersigned's Desk Reference Dictionary, Webster's New World College Dictionary 3d Edition, includes the following definition: "The act of moving around a complete

circuit; specif., the movement of blood out of and back to the heart through the arteries and veins". Words are to be given their plain meaning unless more specifically defined in the specification. MPEP § 2111.01. The claims adhere to a definition of the term "circulation". Additionally, the pump recited in the claims is capable of "inducing circulation in the carbonated water circulation circuit". Given the drawings, the specification and the plain meaning of these terms, the pump is capable of moving the carbonated water around in a circulation through the circulation circuit. Thus, the system claims recite a circulation circuit for movement of carbonated water about a complete circuit. As specifically presented above, Bilskie et al. fails to have such a circulation circuit or a circulation pump capable of inducing circulation.

Riley et al. discloses an ice storage bin. The ice storage bin is enhanced by refrigeration flowing through conduit line 38. Again, there is no circulation circuit for carbonated water and no circulation pump capable of inducing circulation. Both Bilskie et al. and Riley et al. fail to provide such elements.

Flessler et al. also provides no circulation circuit or circulation pump. Flessler et al. is applied in the Official Action as teaching the use of return lines 101/103 in the context of claim 2 of the present application. In claim 2 of the application, the supply and return lines are in the carbonated water circulation circuit. In Flessler et al., these lines provide pneumatic power and have nothing to do with beverage conduit lines. The lines 101/103 in Flessler et al. are shown to be propellant return lines. See Column 4, line 36 et seq. These lines are further understood as providing pneumatic power to fluid powerable syrup pumps (column 2, lines 45-46) and a water pump

(column 3, line 57 *et seq.*). The product lines are not the same and have no part of a circulation circuit. See column 4, line 12 *et seq.*

The system of Booth provides a typical mechanical refrigeration system such as disclosed in numbered paragraph 12 in the background of the present specification. Booth lacks the bar gun and the cold plate.

From the foregoing comments, it can be appreciated that the references do not provide a system employing, in combination, a circulation circuit, a bar gun, a circulation pump and an ice storage bin with heat transfer coils therein. The third requirement for a *prima facie* case of obviousness as set forth in MPEP § 2142 is not met.

Also required is some suggestion or motivation for the combination of these diverse references. Bilskie et al. is directed to a self-contained system. Indeed, it uses pneumatic pressure to power the system. Rather than a self-contained system, Riley et al. shows a full fountain service using powered refrigeration. Reference is made to Figure 9 of Riley et al. to demonstrate the complete incompatibility between these two references. Flessler et al. also discloses complete fountain service with cooling apparently elsewhere. Finally, Booth also provides a complete fountain system, further incompatible with Bilskie et al. Additionally, there are no teachings or suggestions in any of these references of interchange of components to achieve the system as claimed in the present application. As such, a *prima facie* case of obviousness is not supported by these references against the system claims 1 through 10.

Turning to the rejection of method claims 11 and 12, these claims recite circulating carbonated water through a closed carbonated water circuit which has coils in an ice plate. The step of circulating is until the temperature is 33° F or below. Hessell teaches the lowering of temperatures using a refrigeration system through techniques disclosed in the patent, presumed to be inventive, to achieve a temperature of 35° F. None of the applied references employ circulation through a cold plate to achieve the desired temperatures.

In the Background of the Invention in Hessell the ideal is discussed:

Ideally a soft drink should be dispensed at 32° - 36° F. (0° - 2.2° C.); 40° F. (4.4° C.) is the upper limit of acceptability. It is very difficult to attain 32° F. (0° C.) dispensing because this is at the freezing point of water and refrigeration controls and temperature controls are unable to reliably maintain this temperature without occasional freeze-ups.

Reference is then made to the ability of ice bank-type beverage coolers:

An ice bank type beverage cooler and dispenser can attain dispensing temperature at or close to 32° F. (0° C.) with the use of relatively massive quantities of ice, but an air-cooled or direct refrigerant cooled beverage cooler and dispenser can reliably attain only 36° - 40° F. dispensed beverage.

The present method claims 11 and 12 recite a process where an ice plate is used with continued circulation to achieve 33° F. or below. This is not disclosed in Hessell, Bilskie et al. and Riley et al. do not present such circulation either. Applicants do not contend that ice plates have been unable to reduce the temperature of carbonated water to 33° F. and below. Rather, with a conventional ice plate system, these temperatures are achieved only when conditions allow 1) an adequate residence time for the carbonated water in the ice plate and 2) sufficient flow to cool the line to the valve, the repeatability of which is a difficult and problematic task. This becomes

consistently achievable with the method recited in claims 11 and 12. As such, the combination of Bilskie et al., Riley et al. and Hessell does not teach the recited steps of these claims.

The combination of these references is also not suggested. Riley et al. and Hessell take different schemes to attempt controlled cooling using a refrigerant system. Riley et al. includes a hybrid system using refrigerant and ice while Hessell employs a precooler. Booth is concerned with fresh water make-up and offers nothing to mitigate the difficulties regarding refrigeration systems as described in Hessell.

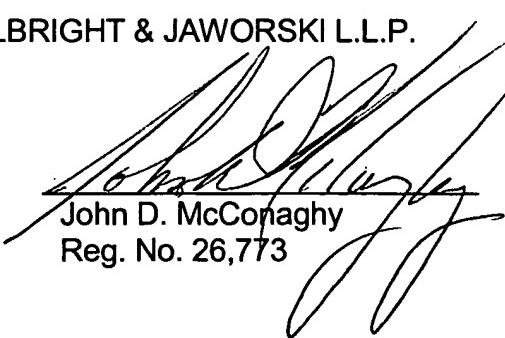
Thus, the references applied against claims 11 and 12 do not teach the steps recited in these claims and find no suggestion or compatibility in any combination. Consequently, a *prima facie* case of obviousness over these three references cannot be supported.

In view of the foregoing, it is believed that all of claims 1 through 12 describe features and steps which are neither found in nor suggested by the applied references. Consequently, a *prima facie* case of obviousness cannot be established. Therefore, a Notice of Allowance is earnestly solicited.

Respectfully submitted,

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August 23, 2004

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